CLAIMS

1　1. A symbol expansion method comprising:

2　　　　selecting a map portion containing one or more map display symbols on a computer

3　map display; and

4　　　　presenting a symbol expansion display related to the map portion on the computer

5　map display.

1　2.　　The method of claim 1, wherein the selecting comprises:

2　　　　pointing to a map display symbol with a computer pointing device.

1　3.　　The method of claim 1, wherein the selecting comprises:

2　　　　selecting a map portion of the computer map display containing the one or more map

3　display symbols with the computer pointing device.

1　4.　　The method of claim 1, wherein the presenting comprises:

2　　　　relating the one or more map display symbols to one or more map symbol records

3　retained in a computer memory, each containing record components;

4　　　　selecting one or more record components from among the one or more map symbol

5　records; and

6　　　　formatting the one or more record components for the symbol expansion display.

1　5.　　The method of claim 4, wherein the selecting one or more record components

2　comprises:

3　　　　selecting record graphics components of the one or more map symbol records.

1　6.　　The method of claim 5, wherein the selecting one or more record components

2　comprises:

3　　　　selecting record data of the one or more map symbol records.

1　7.　　The method of claim 6, wherein the selecting record data comprises:

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2   filtering the record data of the one or more map symbol records to provide symbol

3   expansion data corresponding to a selected record data type.

1   8.   The method of claim 7, wherein filtering the record data comprises:

2   selecting a record data type selected from the group consisting of a dollar asset range

3   record data type, a friendliness range record data type, a personnel size record data type, a

4   security classification record data type, a type of service record data type, and an age of

5   symbol record data type.

1   9.   The method of claim 6, wherein the selecting record data comprises:

2   filtering the record data of the one or more map symbol records to provide symbol

3   expansion data corresponding to a selected record data range.

1   10.   The method of claim 6, wherein the selecting record data comprises:

2   algorithmically combining map symbol records to provide symbol expansion data.

1   11.   The method of claim 4, wherein formatting comprises:

2   providing a list of the symbol expansion graphics, movable by the user on the

3   computer maps display, and associated with the record graphics components of the one or

4   more map symbol records.

1   12.   The method of claim 11, wherein formatting further comprises:

2   providing a list of the symbol expansion data, movable by the user on the

3   computer maps display, and associated with the record data components of the one or

4   more map symbol records.

1   13.   The method of claim 12, wherein providing a list of symbol expansion data

2   comprises:

3   providing a user selectable language for the list of symbol expansion data.

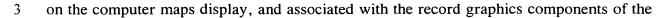1   14.   The method of claim 13, wherein formatting further comprises:

2   providing a lead line from the map display symbol to the symbol expansion display

3   where the lead line moves in accordance with the position of the symbol expansion

4   display.

1   15.   The method of claim 14, wherein formatting further comprises:

2   color coding a symbol expansion graphic to indicate an attribute of the object

3   represented by the map display symbol.

1   16.   The method of claim 15, wherein formatting further comprises:

2   augmenting the symbol expansion display with special identifying characters that

3   indicate when symbol information components have been omitted from the symbol

4   expansion display.

1   17.   A symbol expansion apparatus comprising:

2   a selection device to select a map portion containing one or more map display

3   symbols on a computer map display; and

4   a presentation processor that receives information concerning the one or more map

5   display symbols selected by said selecting device and which presents a symbol expansion

6   display related to the map display region on the computer map display.

1   18.   The apparatus of claim 17, wherein the for presentation processor comprises:

2   a computer memory having one or more map symbol records stored therein;

3   a relation processor which relates the one or more map display symbols to one or

4   more map symbol records retained in the computer memory;

5   a selector for selecting one or more record components from among the one or more

6   map symbol records; and

7   a display processor which receives and formats each of the one or more record

8   selected components for the symbol expansion display.

1   19.   The apparatus of claim 18, wherein the display processor comprises:

2   .   means for providing a list of the symbol expansion graphics, movable by the user

3   on the computer maps display, and associated with the record graphics components of the

4   one or more map symbol records.

1   20.   The apparatus of claim 18, wherein the display processor further comprises:

2   means for providing a list of the symbol expansion data, movable by the user on

3   the computer maps display, and associated with the record data components of the one or

4   more map symbol records.

1   21.   The apparatus of Claims 18 wherein the selection device is adapted to select a map

2   portion containing the one or more map display symbols.